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RICHMOND CASTLE, YORKSHIRE.

[Richmond Castle, from the River Swale.]

THE origin of the town of Richmond, in the North Riding of Yorkshire, dates from a few years after the conquest. Earl Edwin, who, before that event, possessed the part of the country in which Richmond is situated, was perhaps the most powerful of the Saxon nobles—being, in addition to the extensive lands of which he was lord, nearly allied by blood to the royal family. It was not to be supposed that a person occupying such a position as his would yield any thing beyond a forced submission to the Norman invaders. We find the young and brave Earl, accordingly, at the head of two vigorous attempts successively made by those of his nation, to recover the independence of their country, within the first three years after the arrival of William. He was pardoned for his participation in the first; but on the second occasion, after the revolt had been suppressed, he was betrayed by some persons in whose fidelity he had confided, and notwithstanding a gallant defence, overpowered and slain. His assassins carried his head to William, in hopes of obtaining a reward for the deed; when the stern Norman is said to have shed tears at the sight, and, instead of bestowing upon them preferment or gold, to have commanded that the perpetrators of the crime should be banished from the kingdom. Before this, however, he had stripped the Saxon Earl of his broad domains, and transferred them to a follower and kinsman of his own, Alan, Count of Bretagne, to whom he also sometime after gave his daughter Hawise in marriage. By this gift it is said, that Count Alan was put in possession of no fewer than two hundred manors and townships. It was he who, to protect himself and his property from the hostile population, in the midst of whom he came to establish himself, built the Castle of Richmond, around which the town was probably soon formed by his Norman retainers.

After Alan's death, the earldom of Richmond descended to a son of Hawise by a former husband, she having left no children by the Count of Bretagne. After this the dignity was held successively by various families. It was at length erected into a dukedom by Henry VIII. in favour of his natural son by the daughter of Sir John Blount, who died in 1535 at the age of seventeen. The dukedom fell to the present family in the reign of Charles II., and with it the Castle of Richmond.

The castle has long been a complete ruin. Leland, who saw it in 1534, speaks of it in his Itinerary as even then fallen into decay and deserted. Yet it does not appear to have suffered from any siege, or other species of violence. Neglect alone would seem to have reduced it to its present condition. It certainly has not been inhabited at least since the year 1485, when it came into the possession of the crown, by the accession of Henry VII., who was previously Earl of Richmond.

The town and castle stand on elevated ground on the north bank of the river Swale. The site of the castle, which is between the river and the town, occupies a space of about six acres. Except on the north side, or that next the town, the fortress from the natural advantages of its position, must have been quite inaccessible. The ground on which it is built is elevated to the height of fully one hundred feet above the stream, the precipice being broken into two parts about midway down by a walk eight or nine feet broad, which runs under the castle wall. The portion of the hill above the walk is faced with large stones, so as to give it almost the appearance of a rock. On the west side of the castle is a deep valley, which is probably artificial; and

the Swale also winds round the east side, where the descent is much more gradual. On the north there was formerly a moat, which however has been long filled up and obliterated. The whole was originally surrounded by a high wall, strengthened at intervals with towers, and measuring not less than half a mile in extent.

For a long time after its erection Richmond Castle was probably unrivalled in England for either extent or strength. It was a military stronghold, constructed in every part with a view to defence. The old barons lived here in the condition of petty sovereigns, and kept the surrounding country in awe and subjection for many miles around from their impregnable fortress.

The principal portion of the edifice that now remains is an immense square tower on the north side, said to have been built about the middle of the twelfth century. It measures fifty-four feet in one direction, by forty-eight in another; and the walls are ninety-nine feet in height, and eleven in thickness. Above these pinnacles rise from the four corners. This tower has consisted originally of three stories, the lowest of which is supported by a massive stone pillar placed under the centre of its arched roof. The roofs of the two upper stories have fallen in; and a winding staircase, which formerly no doubt ascended to the top, now reaches only to the height of the middle apartment. There is a well of excellent water within this tower. At the south-east corner of the castle there is the ruin of a smaller tower, in the bottom of which is formed a dungeon about fourteen feet in depth. And there is another tower at the south-west corner, round and narrow, and of considerable height, to which there is no entrance except from the top. It was probably used as a prison.

Ruined and desolate as it is, the aspect of Richmond Castle is still singularly majestic and imposing. Its venerable antiquity, its vast extent, its commanding position, and the massiveness and lofty altitude of those parts of the structure which time has not yet overthrown, all contribute to fill the mind with a sense of sublimity in gazing upon its broken arches and ivy-mantled towers. The effect is powerfully aided by the character of the surrounding landscape, which, towards the north-west especially, has much of the grandeur of highland scenery.

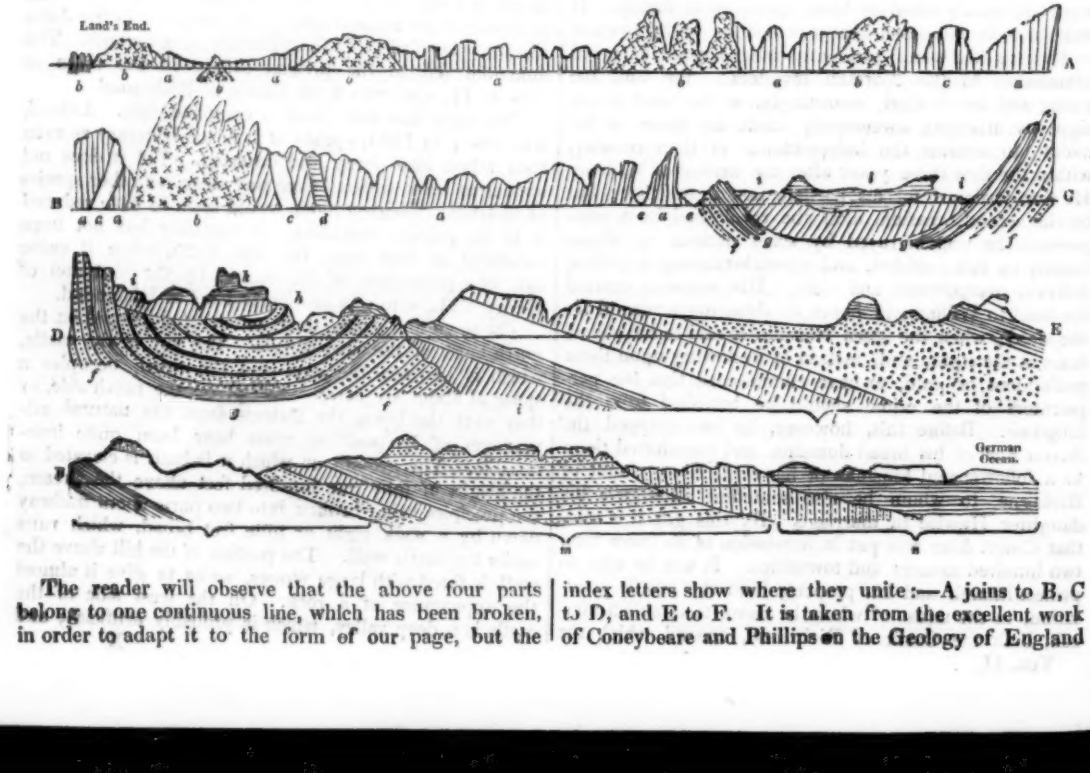
Viewed from the surrounding hills the town and castle of Richmond, notwithstanding their elevation above the ground in their immediate neighbourhood, seem to lie at the bottom of a valley. It is extremely probable that the place has derived its name, Richmont, or the Rich Mount, from its eminent natural attractions. Richmond in Surrey is said to have been so named in a much later age on the same account. The scenery around the latter celebrated spot, however, it has been remarked, differs essentially in character from that in the midst of which the Yorkshire Richmond is placed,—the beautiful being the prevailing ingredient in the one, while of the other landscape, a wild and stern grandeur may rather be said to be the predominant expression. With this, which is however intermingled and relieved in many places by the richest attractions of a softer kind, the old and frowning ruin, to which our notice relates, is admirably in keeping.

MINERAL KINGDOM.—Section 7.

In the sketch we have given of the Secondary and Tertiary Rocks, in speaking of the organic remains which they contain, we have done little more than mention the existence of certain classes, as they appear in the order of succession. But there are circumstances connected with these bodies so very important, as regards the history of our planet, that even a very brief outline of geology would be incomplete, were they left unnoticed. We shall endeavour, in a subsequent section, to lay before our readers some of the most remarkable results which the researches of geologists in this department have brought to light.

We gave, in our second section, a kind of tabular view of the order of succession in the stratified rocks, and having now completed our sketch of the different groups of strata, we shall exhibit, not an ideal, but a real, section of a part of England, which will at once convey, far more intelligibly than any verbal description, a very correct notion of the manner in which the strata now present themselves, when we penetrate the crust of the earth, or view them in those precipices on the seashore, or in mountainous districts, where natural sections are exposed.

(No. 6.)—Section of the stratified and unstratified Rocks from the Land's End in Cornwall to the Coast of Suffolk.



The reader will observe that the above four parts belong to one continuous line, which has been broken, in order to adapt it to the form of our page, but the index letters show where they unite:—A joins to B, C to D, and E to F. It is taken from the excellent work of Coneybeare and Phillips on the Geology of England

and Wales, and those who have access to that book will perhaps understand the section better, as it is there given, the colours and names rendering it more clear. There are also other instructive sections in the same plate. It must not be supposed that any such section as that represented here is to be seen: it is constructed by putting together an extensive series of exact observations and measurements at detached points along the line, made, however, with such care, that if the land were actually cut down, it is very unlikely that any of the great features would be found to be erroneous. Suppose then that a line be drawn from the Land's End to Bendley Hill, on the east coast, near Harwich, not absolutely straight, but passing over all the great features of the country that lie between the two points, at a short distance on either side of an imaginary central line; and that a vertical section were made, to a depth in some place, as far below the level of the sea, as we have penetrated in our deepest mines—the precipice thus exposed would present such an arrangement of the strata as is exhibited in the above diagram. It is necessary, however, to state that neither the horizontal distances nor the vertical elevations can be given in such a diagram in their true proportions. To do so, the paper must have been many yards long, and several feet in height. The order of position, and the succession of the strata as they lie over each other, are, however, truly given; and nothing would be gained for the illustration of the facts the section is intended to represent, by increasing either the length or height. The horizontal line represents the level of the sea. We shall now travel along the line of section, beginning our journey at the Land's End in Cornwall. We shall thus, as we move eastward, meet the different groups of strata in the order of succession we have already described, and shall find the tertiary rocks on the shores of the German ocean.

Fig. A is that portion of the section which extends from the Land's End to the western slope of Dartmoor Forest, north of Tavistock,—crossing Mount's Bay to Marazion, Redruth, Truro, and north of Grampound and Lostwithiel. The principal rock is primary slate, *a*, which is in highly inclined strata, and is traversed by numerous metallic veins and great veins or dykes of granite and other unstratified rocks, *b* and *c*, the granite also forming great mountain masses that rise in some instances to the height of 1368 feet above the sea, and in many places the great masses of granite are seen to send up shoots in numerous and frequently slender ramifications into the superincumbent slate.

Fig. B C contains that part of the section which lies between a point some miles north of Tavistock, and the summit of the Mendip Hills in Somersetshire, passing near Tiverton, Milverton, Nether Stowey, and Cheddar. On the left or western part, we find a continuation of the slaty rocks, *a*, traversed by veins of whinstone, *c*, and then we come upon a mass of granite, *b*, forming the lofty mountain group of Dartmoor Forest. This is flanked on the east by the same slate that occurs on the west, and containing veins of whinstone, *c*, and subordinate beds of limestone, *d*. The slate continues without interruption for many miles, as far east as the Quantock Hills, near Nether Stowey, where it is seen for the last time on this line of section, being succeeded by the secondary rocks. A great part of the slate belongs to that lowest group of the secondary rocks called transition, in which the rock *Grauwacke* prevails, from which the group has been named. On each side of the Quantock Hills are deposits of rounded pebbles of grauwacke and limestone cemented together, *e a*. To the slate, *a*, succeeds the old red sandstone group, *f*, followed by the mountain limestone group, *g*. The strata of these rocks soon after their deposition, must have been violently acted upon, for they are thrown up in such a manner as to form a trough or basin, as it is called in geological language, and in this trough there are found the red marl group *i* and the lowest member of the oolite group, the lias limestone, *l*. Here we miss a member of the series which should have come between the mountain limestone and the red marl, viz. the coal group—this is a blank of very frequent occurrence, but we shall find it in its right place on the other side of the Mendip Hills. These are cut through on the right of the figure, and are seen to be composed of old red sandstone in the centre, covered on their sides by mountain limestone.

Fig. D E represents that part of the section which lies between the Mendip Hills and Shotover Hill near Oxford. On the west we see the old red sandstone group in the centre of the Mendip ridge, and that it is succeeded by a very instructive section of the great coal-field of Somersetshire. Here, as on the west side of the Mendip Hills, the old red sandstone and mountain limestone groups have been acted upon by such a force from below, that they have been thrown up in opposite directions, and have formed a trough. As the coal measures, *h*, partake of the curvature, it is evident that the disturbance took place subsequently to their deposition, but it must have been prior to that of the next group, for the red marl beds, *i*, are deposited in unconformable stratification upon the turned-up ends of the strata of the coal group. The red marl group is covered by the portions of the lowest bed of the oolite group, *k*, indicating some powerful action at the surface, which has caused the removal of the connecting portions of the oolite beds, leaving insulated masses on the summits of high hills. This last occurrence of a mass of an horizontal stratum capping a lofty hill is very frequent, for the surface of the earth exhibits many proofs of its having been acted upon by water in motion, which has scooped out valleys and washed away vast tracts of solid earth. But such mountain caps have been also sometimes produced by the elevation of the mountain, a portion of rock being carried up to a great elevation, which had been a part of an extensively continuous stratum at a lower level. This deposit of the coal group is succeeded as we proceed eastward by the red marl group, resting in unconformable stratification on the ends of the old red sandstone, two intermediate groups being thus wanting, and this is followed for many miles by successive members of the oolite group, *l*, inclined at a low angle.

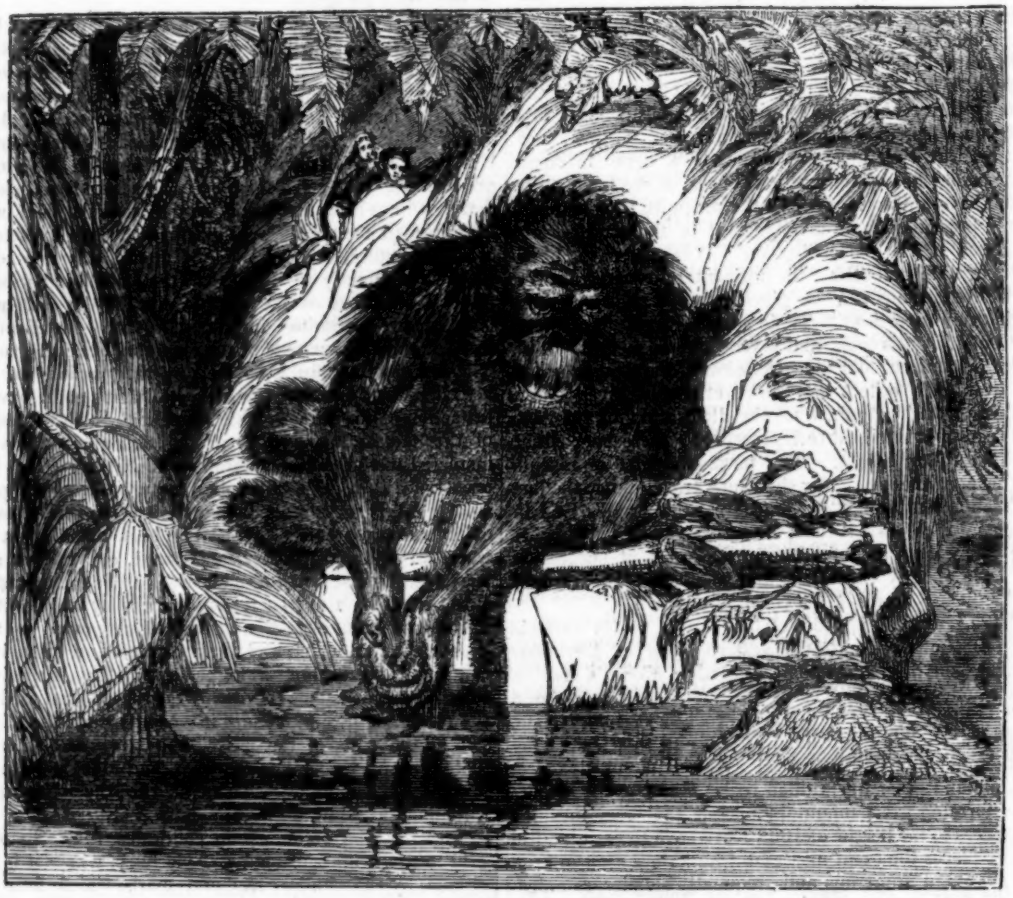
Fig. F. The oolite group continues from Shotover Hill to the neighbourhood of Aylesbury, where it is succeeded by the sands, clays, and marls, which form the inferior members of the chalk group, *m*. Near Tring the chalk with flints emerges, forming the lofty hill of Ivinghoe, which is 904 feet above the level of the sea, and it continues uninterruptedly to Dunmow in Essex. Here the secondary rocks terminate, and the chalk is covered by very thick beds of clay, *n*, which form the lowest members of the tertiary strata, and continuing on to the sea, appear in the cliffs of the coasts of Essex and Suffolk.

In the greater part of the country through which the above section has been carried, it will be seen that no unstratified rocks rise to the surface after we leave the district of Dartmoor Forest. That they exist below the strata, and that their protrusion *towards* the surface has been the cause of the disturbance of the sedimentary deposits exhibited by this section, is at least extremely probable, for we find them coming to the surface from under several of these strata in other parts of Great Britain.

In the diagram No. 1, representing the general order of succession of the stratified rocks, we have selected examples of their occurrence from our own territory, in order to give our readers an opportunity of examining the rocks when they happen to be near the spots mentioned, and to show that our island affords almost an epitome of the mineral structure of the crust

of the globe. There are some rocks of great extent found on the Continent which have not yet been observed in Great Britain, but they are only subordinate members of one of the groups we have mentioned. With the exception of these, some of the superior members of the tertiary series, and the products of active volcanoes, Great Britain and Ireland afford an ample field for studying almost every thing that is most important in the science of geology.

THE ORANG-OUTANG.



[The Orang-Outang. From a Sketch of a live Specimen.]

Of the animals commonly called four-footed, or quadrupeds, there is a family or genus comprehending upwards of a hundred different species, to which, upon a more accurate examination of the structure of their extremities, the popular designation appears to be incorrectly applied. The anterior extremities of monkeys are furnished, as is well known, with fingers, and a thumb capable of being opposed to these fingers, the whole bearing a striking resemblance to the human hand; and the same structure is observed in a tribe of animals nearly allied in external character to monkeys, called lemurs. Not only are their anterior extremities thus distinguished; but we find also, on examining their hinder extremities, that instead of having a great toe placed parallel with the others, they are furnished with a real thumb, that is, a part capable of being opposed to the other toes. Hence the parts corresponding to the hind-feet of other animals are, more properly speaking, hands; and the whole family of animals distinguished by this structure has been called by naturalists *quadrumanous*, or four-handed.

Of the whole tribe of quadrumanous animals, the orang-outang is that which approaches most nearly in structure and organization to the human subject. The above is a portrait of an individual exhibited about two years ago*.

In the year 1817 an orang-outang was brought to this country from Java by Dr. Abel, to whom we are indebted for a more scientific and instructive, as well as interesting and entertaining account of the structure and habits of this animal than is to be found in the writings of any other traveller or naturalist. This animal survived his transportation to this country from August, 1817, when he arrived, to the 1st of April, 1819, during which interval he was in the custody of Mr. Cross at Exeter 'Change, as much caressed for the gentleness of his disposition, as esteemed by scientific visitors of Mr. Cross's Menagerie for his great rarity.

It may be necessary, says Dr. Abel †, to acquaint some of my readers that the orang-outang of Borneo has been confounded by many writers with an animal that inhabits Africa, and which has also been called orang-outang, but is more correctly known by the name of Pongo. The pongo, which has been minutely described by Tyson,

* The orang-outang in this cut is represented as washing his hands. The attitude is taken from a description given in a singular book, entitled 'The Adventures of a Younger Son.'

† Narrative of a Journey in the interior of China, &c. p. 319.

differs anatomically from the subject of this description, and in having large ears and black hair.

Orang-outang is a Malay phrase, signifying "wild man," and should therefore be restricted to the animal which, according to our present information, is found exclusively on Borneo.

The height of the animal, judging from its length when laid on a flat surface and measured from his heel to the crown of his head, is two feet seven inches.

The hair of the orang-outang is of a brownish red colour, and covers his back, arms, legs, and outside of his hands and feet. On the back it is in some places six inches long, and on his arms five. It is thinly scattered over the back of his hands and feet, and is very short. It is directed downwards on the back, upper arm, and legs, and upwards on the fore-arm. It is directed from behind forwards on the head, and inwards on the inside of the thighs. The face has no hair, except on its sides, somewhat in the manner of whiskers, and a very thin beard. The middle of the breast and belly was naked on his arrival in England, but has since become hairy. The shoulders, elbows, and knees have fewer hairs than other parts of the arms and legs. The palms of the hands and feet are quite naked.

The prevailing colour of the animal's skin, when naked or seen through the hair, is a bluish grey. The eyelids and margin of the mouth are of a light copper-colour. The inside of his hands and feet are of a deep copper-colour. Two copper-coloured stripes pass from the arm-pits down each side of the body as low as the navel.

The head, viewed in front, is pear-shaped, expanding from the chin upwards, the cranium being much the larger end. The eyes are close together, of an oval form, and dark brown colour. The eyelids are fringed with lashes, and the lower ones are saccular and wrinkled. The nose is confluent with the face, except at the nostrils, which are but little elevated; their openings are narrow and oblique. The mouth is very projecting, and of a roundish mammillary form. Its opening is large, but when closed is marked by little more than a narrow seam. The lips are very narrow, and scarcely perceptible when the mouth is shut. The chin projects less than the mouth; below it a pendulous membrane gives the appearance of a double chin, and swells out when the animal is angry or much pleased. Each of the jaws contains twelve teeth, namely, four incisive teeth, the two middle ones of the upper jaw being twice the width of the lateral, two canine and six double teeth. The ears are small, closely resembling the human ear, and have their lower margins in the same line with the external angles of the eyes.

The chest is wide when compared to the pelvis; the belly is very protuberant. The arms are long in proportion to the height of the animal, their span measuring full four feet seven inches and a half. The legs are short when compared with the arms.

The hands are long when compared with their width and with the human hand; the fingers are small and tapering; the thumb is very short, scarcely reaching the first joint of the fore-finger. All the fingers have very perfect nails of a blackish colour and oval form, and exactly terminating with the extremities of the fingers. The feet are long, resemble hands in the palms and in having fingers rather than toes, but have heels resembling the human. The great toes are very short, are set on at right angles to the feet close to the heel, and are entirely without nails.

The orang-outang of Borneo is utterly incapable of walking in a perfectly erect posture. He betrays this in his whole exterior conformation, and never wilfully attempts to counteract this tendency. His head leaning forwards, and forming a considerable angle with the back, throws the centre of gravity so far beyond the perpendicular, that his arms, like the fore-legs of other animals, are required to support the body. So difficult, indeed, is it for him to keep the upright position for a few seconds, under the direction of his keeper, that he is obliged, in the performance of his task, to raise his arms above his head and throw them behind him to keep his balance. His progressive motion on a flat surface is accomplished by placing his bent fists upon the ground, and drawing his body between his arms; moving in this manner he strongly resembles a person decrepit in the legs supported on stilts. In a state of nature he probably seldom moves along the ground, his whole external configuration showing his fitness for climbing trees and clinging to their branches. The length and pliability of his fingers and toes enable him to grasp with facility and steadiness, and the force of his muscles empowers him to support his body for a great length of time by one hand or foot. He can thus pass from one fixed object to another at the distance of a span from each other, and can obviously pass from one branch of a tree to another through a much greater interval. In sitting on a flat surface, this animal turns his legs under him. In sitting on the branch of a tree or on a rope he rests on his heels, his body leaning forward against his thighs. This animal uses his hands like others of the monkey tribe.

The orang-outang, on his arrival in Java, was allowed to be entirely at liberty till within a day or two of being put on board the Cæsar to be conveyed to England, and whilst at large made no attempt to escape, but became violent when put into a large railed bamboo cage, for the purpose of being conveyed from the island. As soon as he felt himself in confinement he took the rails of the cage into his hands, and shaking them violently endeavoured to break them in pieces; but finding that they did not yield generally, he tried them separately, and having discovered one weaker than the rest, worked at it constantly till he had broken it, and made his escape. On board ship an attempt being made to secure him by a chain tied to a strong staple, he instantly unfastened it, and ran off with the chain dragging behind; but finding himself embarrassed by its length, he coiled it once or twice, and threw it over his shoulder. This feat he often repeated; and when he found that it would not remain on his shoulder, he took it into his mouth.

After several abortive attempts to secure him more effectually, he was allowed to wander freely about the ship, and soon became familiar with the sailors, and surpassed them in agility. They often chased him about the rigging, and gave him frequent opportunities of displaying his adroitness in managing an escape. On first starting he would endeavour to outstrip his pursuers by mere speed, but when much pressed elude them by seizing a loose rope, and swinging out of their reach. At other times he would patiently wait on the shrouds, or at the mast-head, till his pursuers almost touched him, and then suddenly lower himself to the deck by any rope that was near him, or bound along the main-stay from one mast to the other, swinging by his hands, and moving them one over the other. The men would often shake the ropes by which he clung with so much violence as to make me fear his falling, but I soon found that the power of his muscles could not be easily overcome. When in a playful humour he would often swing within arm's-length of his pursuer, and having struck him with his hand, throw himself from him.

Whilst in Java he lodged in a large tamarind-tree near my dwelling, and formed a bed by intertwining the small branches, and covering them with leaves. During the day he would lie with his head projecting beyond his nest, and watching whoever might pass under, and when he saw any one with fruit would descend to obtain a share of it. He always retired for the night at sunset, or sooner if he had been well fed, and rose with

the sun, and visited those from whom he habitually received food.

On board ship he commonly slept at the mast-head, after wrapping himself in a sail; in making his bed he used the greatest pains to remove every thing out of his way that might render the surface on which he intended to lie uneven; and having satisfied himself with this part of his arrangement spread out the sail, and lying down upon it on his back drew it over his body. Sometimes I pre-occupied his bed, and teased him by refusing to give it up. On these occasions he would endeavour to pull the sail from under me, or to force me from it, and would not rest till I had resigned it. If it was large enough for both he would quietly lie by my side. If all the sails happened to be set he would hunt about for some other covering, and either steal one of the sailor's jackets or shirts that happened to be dry, or empty a hammock of its blankets. Off the Cape of Good Hope he suffered much from low temperature, especially early in the morning, when he would descend from the mast shuddering with cold, and running up to any one of his friends climb into their arms, and clasping them closely, derive warmth from their persons, screaming violently at any attempt to remove him.

His food in Java was chiefly fruit, especially mangostans, of which he was exceedingly fond. He also sucked eggs with voracity, and often employed himself in seeking them. On board ship his diet was of no definite kind. He ate readily of all kinds of meat, and especially raw meat; was very fond of bread, but always preferred fruits when he could obtain them.

His beverage in Java was water; on board ship it was as diversified as his food. He preferred coffee or tea, but would readily take wine; and exemplified his attachment to spirits by stealing the captain's brandy-bottle. After his arrival in London he preferred beer and milk to any thing else, but drank wine and other liquors.

In his attempts to obtain food he offered us many opportunities of judging of his sagacity and disposition. He was always very impatient to seize it when held out to him, and became passionate when it was not soon given up, and would chase a person all over the ship to obtain it. I seldom came on deck without sweatmeats or fruits in my pocket, and could never escape his vigilant eye. Sometimes I endeavoured to evade him by ascending to the mast-head, but was always overtaken or intercepted in my progress. When he came up with me on the shrouds, he would secure himself by one foot to the rattling, and confine my legs with the other, and one of his hands, whilst he rifled my pockets. If he found it impossible to overtake me, he would climb to a considerable height on the loose rigging, and then drop suddenly upon me. Or if, perceiving his intentions, I attempted to descend, he would slide down a rope, and meet me at the bottom of the shrouds. Sometimes I fastened an orange to the end of a rope, and lowered it to the deck from the mast-head, and as soon as he attempted to seize it, drew it rapidly. After being several times foiled in endeavouring to obtain it by direct means, he altered his plan. Appearing to care little about it, he would remove to some distance, and ascend the rigging very leisurely for some time, and then by a sudden spring catch the rope which held it. If defeated again by my suddenly jerking the rope, he would at first seem quite in despair, relinquish his effort, and rush about the rigging screaming violently. But he would always return, and again seizing the rope, disregard the jerk, and allow it to run through his hand till within reach of the orange; but if again foiled would come to my side, and taking me by the arm, confine it whilst he hauled the orange up.

This animal neither practises the grimace and antics of other monkeys, nor possesses their perpetual proneness to mischief. Gravity approaching to melancholy and mildness were sometimes strongly expressed in his countenance, and seemed to be the characteristics of his disposition. When he first came among strangers he would sit for hours with his hand upon his head, looking pensively at all around him; or when much incommoded at their examination, would hide himself beneath any covering that was at hand. His mildness was evinced by his forbearance under injuries which were grievous before he was excited to revenge; but he always avoided those who often teased him. He soon became strongly attached to those who used him kindly. By their side he was fond of sitting, and, getting as close as possible to their persons, would take their hands between his lips, and fly to them for protection. From the boatswain of the Alceste, who shared his meals with him, and was his chief favourite, although he sometimes purloined the grog and the biscuit of his benefactor, he learned to eat with a spoon, and might be often seen sitting at his cabin-door enjoying his coffee quite unembarrassed by those who observed him, and with a grotesque and sober air that seemed a burlesque on human nature.

Next to the boatswain I was perhaps his most intimate acquaintance: he would always follow me to the mast-head, whither I often went for the sake of reading apart from the noise of the ship; and having satisfied himself that my pockets contained no eatables, would lie down by my side, and pulling a topsail entirely over him, peep from it occasionally to watch my movements.

His favourite amusement in Java was in swinging from the branches of trees, in passing from one tree to another, and in climbing over the roofs of houses; on board in hanging by his arms from the ropes, and in romping with the boys of the ship. He would entice them into play by striking them with his hand as they passed, and bounding from them, but allowing them to overtake him, and engaging in a mock scuffle, in which he used his hands, feet, and mouth. If any conjecture could be formed from these frolics of his mode of attacking an adversary, it would appear to be his first object to throw him down, then to secure him with his hands and feet, and then wound him with his teeth.

Of some small monkeys on board from Java he took little notice whilst under the observation of the persons of the ship. Once, indeed, he openly attempted to throw a small cage containing three of them overboard, because, probably, he had seen them receive food of which he could obtain no part. But although he held so little intercourse with them when under our inspection, I had reason to suspect that he was less indifferent to their society when free from observation, and was one day summoned to overlook him playing with a young male monkey. Lying on his back, partially covered with the sail, he for some time contemplated with great gravity the gambols of the monkey, which bounded over him, but at length caught him by the tail, and tried to envelope him in his covering; the monkey seemed to dislike the confinement and broke from him, but again renewed its gambols, and although frequently caught, always escaped. The intercourse, however, did not seem to be that of equals, for the orang-outang never condescended to romp with the monkey as he did with the boys of the ship. Yet the monkeys had evidently a great predilection for his company, for whenever they broke loose they took their way to his resting-place, and were often seen lurking about it or creeping clandestinely towards him. There appeared to be no gradation in their intimacy, as they appeared as confidently familiar with him when first observed as at the close of their acquaintance.

But although so gentle, when not exceedingly irritated, the orang-outang could be excited to violent rage, which he expressed by opening his mouth, showing his teeth, and seizing and biting those who were near him.

Sometimes, indeed, he seemed to be almost driven to desperation, and on two or three occasions committed an act which, in a rational being, would have been called the threatening of suicide. If repeatedly refused an orange when he attempted to take it, he would shriek violently and swing furiously about the ropes, then return and endeavour to obtain it; if again refused, he would roll for some time like an angry child upon the deck, uttering the most piercing screams, and then suddenly starting up, rush furiously over the side of the ship and disappear. On first witnessing this act, we thought he had thrown himself into the sea, but, on a search being made, found him concealed under the chains.

I have seen him exhibit violent alarm on two occasions only, when he appeared to seek for safety in gaining as high an elevation as possible. On seeing eight large turtle brought on board, whilst the Cæsar was off the Island of Ascension, he climbed, with all possible speed, to a higher part of the ship than he had ever before reached, and looking down upon them, projected his long lips into the form of a hog's snout, uttering at the same time a sound which might be described as between the croaking of a frog and the grunting of a pig. After some time he ventured to descend, but with great caution, peeping continually at the turtle, but could not be induced to approach within many yards of them. He ran to the same height, and uttered the same sounds, on seeing some men bathing and splashing in the sea; and after his arrival in England, he showed nearly the same degree of fear at the sight of a live tortoise.

Such were the actions of this animal, continues Dr. Abel, as far as they fell under my notice during our voyage from Java, and they seem to include most of those which have been related of the orang-outang by other observers. I cannot find that after his arrival in England he learnt to perform more than two feats which he did not practise on board ship, although his education has been by no means neglected. One of these is to walk upright or rather on his feet, unsupported by his hands; the other, to kiss his keeper. I have before remarked with how much difficulty he accomplishes the first; and may add, that a well trained dancing dog would far surpass him in the imitation of the human posture. I believe that all figures given of orang-outangs in an unpropped and erect posture are wholly unnatural.

During the time this animal was in the custody of Mr. Cross, there was no need of personal confinement, and little of restraint or coercion; to his keepers especially, and to those whom he knew by their frequent visits, he displayed a decided partiality. During his last illness, and at his death, his piteous appearance, which seemed to bespeak his entreaties to those about him for relief, excited the feelings of all who witnessed them, and recalled strongly to the mind the recollection of human sufferings under similar circumstances.

THE RUINS OF MYCENÆ.

Though the remains of ancient Greece have been explored with so much industry and skill by several travellers of late years, and particularly by some of our own countrymen, there is little doubt that if Greece can obtain a settled government under the new monarch who has lately gone there, future inquirers will have better opportunity of prosecuting researches by digging or other means, than any scholar has hitherto enjoyed. Much may yet be discovered by removing the accumulated rubbish of ages, and at all events, new inquirers, if they do nothing more, will extend and correct our knowledge of what is already discovered.

The remains of Greek temples, of which several views have been given in this Magazine, are certainly the most striking and attractive of the imperishable monuments of Grecian art; but there are ruins of another description, belonging to the character of military architecture, that are no less worthy of attention. If the traveller lands at the port of Nauplia, or Napoli, or Anápli, as it is sometimes called in the Morea, and proceeds about ten miles northwards in the plain of Argos, he will come to the remains of the ancient city of Mycenæ, once the capital of Agamemnon, who, according to the Iliad of Homer, was the commander-in-chief of the assembled Greeks before the walls of Troy. This event took place (following the received chronology) about B.C. 1184. We cannot indeed assert that the ruins of Mycenæ are not the remains of some buildings erected *after* the war of Troy; but all the arguments seem in favour of considering them of higher antiquity than that epoch.

Mycenæ stands near the extremity of the plain of Argos, on a rugged eminence between two summits of that range of hills which here bound the plain. This may be called an Acropolis, like the rocky height at Athens, on which the remains of the temple of Minerva (the Parthenon) now stand. The length of the Acropolis of Mycenæ is about four hundred yards, and its breadth about two hundred; and the unevenness of the surface, as well as some interior remains, show that it was divided into different parts. The whole circuit of this citadel can still be made out; and in some places the walls remain to the height of fifteen or twenty feet. They are constructed of huge stones, and belong to that style of building commonly named Cyclopean, from certain unknown personages called Cyclopes by the Greek writers, who appear to have been very busy workmen, as we find their labours in many parts both of Italy and Greece. This description of wall-building is recognized by its massy materials, and by a certain style of rudeness; in which, however, different orders or epochs are easily distinguished. The oldest part of the walls of Mycenæ resembles the Cyclopean walls of Tiryns, a place to the south about seven miles distant, which are apparently nothing more than huge masses of unwrought stone, placed one above another, with the interstices filled up by smaller materials. Such structures belong to an early stage in architectural experiments, as we may see in the massy walls of the Peruvians, and the remains of Stonehenge and Avebury in our own country.

The citadel of Mycenæ is of an irregular oblong form, and is now chiefly an object of curiosity for the gate or great entrance at the north-west angle. The approach to this gate is by a passage 50 feet long and 30 wide, formed by two parallel and projecting walls, which were a part of the fortification, and were obviously designed to command the entrance, and annoy any enemy who might venture to attack the place.

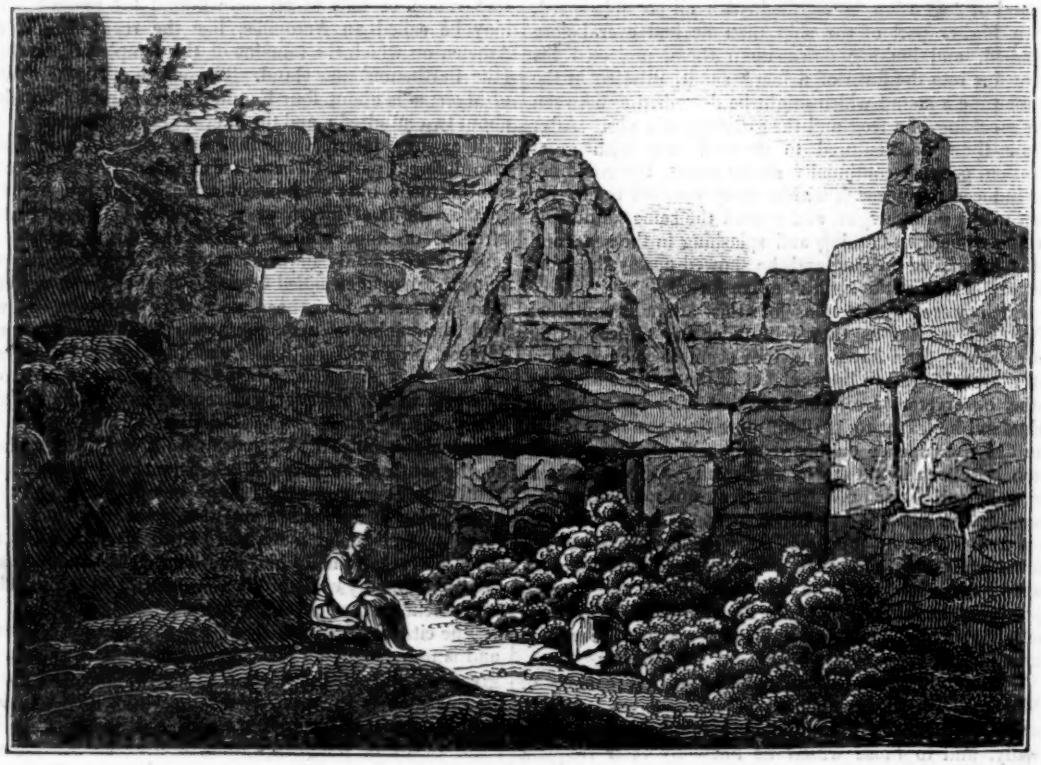
The door-way is somewhat narrower at the top than the bottom, which we find also to be the case in Peruvian, and in some Egyptian door-ways, but not, we believe, in the oldest architectural remains of the latter country. The width of the door at Mycenæ at the top is 9½ feet. It is formed of three stones, two uprights, the height of which is not yet known, as they are buried a considerable depth in the earth; and a cross stone forming a soffit. This last is 15 feet long, 4 wide, and 6 feet 7 inches thick in the middle, but diminishes towards each end. On this stone stands another of a triangular shape, which is 12 feet long, 10 high, and 2 thick. Two lions are cut in relief on the face of this stone, standing on their hind-legs, on opposite sides of a round pillar, on which their fore-paws rest. "The column," says Colonel Leake *, who is our authority for the present description, "becomes broader towards the top, and is surmounted with a capital formed of a row of four circles, enclosed between two parallel fillets." The top of the stone with the heads of the lions

* Travels in the Morea. London, 1830.

is wanting, and perhaps something is gone from the top of the pillar between them. This singular gateway is described by a Greek traveller of the second century of our era (Pausanias, book ii. chap. 16) in the following words:—"Mycenæ was destroyed by the people of Argos through jealousy; but there still remain parts of the wall and the gate, which has lions over it. It is said that all this was the work of the Cyclopes, who built the walls of Tiryns for Proetus." The destruction of Mycenæ, here alluded to, took place B. C. 468; and though there are traces of some later repairs about the place, we have no reason to think that it was ever inhabited after that time by any considerable numbers: in the time of Pausanias it was deserted, and still remains so, and probably hardly a single change has taken place from the visit of Pausanias down to the present time. The barbarians, who have used so freely the well-cut stones of Grecian temples to construct modern edifices, have not taken the pains to carry off the massive materials of Mycenæ and Tiryns.

Attempts have been made to explain the meaning of the two lions cut in stone, but there is not a single satisfactory point of comparison with other works of Grecian art that will help us in the conjecture. The lion has been in all countries and ages a favourite subject for sculpture; but the origin of this practice we do not conceive to have any connection with a religious idea.

Besides the walls and gateways of Mycenæ (for there is also a postern-gate of smaller dimensions), we find the remains of four chambers, constructed in a peculiar way, which we may probably at some future opportunity describe. One of them is called the treasury of Atreus according to an old tradition which had been handed down to the time of Pausanias.



[The Gate of Mycenæ.]

Tranquillity.—One day brings on another day, one year follows another: let us take the time as it comes. A hundred years of trouble are not worth a day of tranquillity. The source of all pleasures is in our own heart; he who seeks them elsewhere outrages the Divinity. My projects, my desires, and my hopes never go beyond my own bosom. Rivers roll rapidly to the sea and enter therein without troubling it: my heart is the same; all the events of the great world do not cost me a single care. Truth is my compass, and moderation my helm. I advance on my way whatever wind may blow. The clouds arise and the clouds descend in rain without causing me any inquietude. When they conceal the sun from me by day I try to look at the stars by night. The swallow in her safe nest sees with a tranquil eye the bloody combats of the vultures. Let who will conquer the conqueror will not molest her; and the little flies and worms never fail her. My clothes are made of common cloth, my food is coarse, and the thatch which covers my hut decays every year. But what would it be to me to-morrow to have been dressed in silk to-day and to have digested costly dishes? Golden roofs do not keep out sleeplessness and care; and were the country shaken by an earthquake how easily can I gain my humble door! My patrimony is at the end of my two arms, and every day gives me its harvest. When it is hot I cool myself in the shade of a tree, and when it is cold I warm myself by working. Old age is coming upon me: but my children are young, and will repay me for what I have done for them. If they always observe truth and moderation a hundred years will not cost them a sigh. Whatever tempests may arise Tranquillity is a port always open to the innocent of heart. Hail tranquillity of the soul! Sweet charm of life! Kings would sell their crowns to buy thee if they knew thy value. Complete thy benefits: thou hast helped me to live well—help me to die well.—*Translation of a Chinese poem, attributed to a celebrated doctor named Lean.*

*** The Office of the Society for the Diffusion of Useful Knowledge is at 59, Lincoln's-Inn Fields.

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